

## **405 KAR 20:080. In situ processing.**

RELATES TO: KRS 350.010, 350.151, 350.465, Chapter 353

STATUTORY AUTHORITY: KRS 350.028, 350.151, 350.465

NECESSITY, FUNCTION, AND CONFORMITY: KRS Chapter 350 requires the cabinet to promulgate administrative regulations that establish environmental protection performance standards for all surface coal mining and reclamation operations. This administrative regulation establishes certain performance standards for in situ processing activities.

Section 1. Performance Standards. (1) The permittee who conducts in situ processing activities shall comply with 405 KAR Chapter 18 and this section.

(2) In situ processing activities shall be planned and conducted to minimize disturbance to the prevailing hydrologic balance by:

(a) Avoiding discharge of fluids into holes or wells, other than as approved by the cabinet through a permitting action;

(b) Injecting process recovery fluids only into geologic zones or intervals approved as production zones by the cabinet in accordance with KRS Chapter 353 and 805 KAR Chapter 1;

(c) Avoiding annular injection between the wall of the drill hole and the casing; and

(d) Preventing discharge of process fluid into surface waters.

(3) Each permittee who conducts in situ processing activities shall submit for approval as part of the application for permit pursuant to 405 KAR 8:050, and follow after approval, a plan that ensures that all acid-forming, toxic-forming, or radioactive gases, solids, or liquids constituting a fire, health, safety, or environmental hazard and caused by the mining and recovery process shall be promptly treated, confined, or disposed of, in a manner that shall prevent contamination of ground and surface waters, damage to fish, wildlife and related environmental values, and threats to the public health and safety.

(4) Each permittee who conducts in situ processing activities shall prevent flow of the process recovery fluid:

(a) Horizontally beyond the affected area identified in the permit; and

(b) Vertically into overlying or underlying aquifers.

(5) Each permittee who conducts in situ processing activities shall restore the quality of affected groundwater in the permit area and adjacent area, including groundwater above and below the production zone, to the approximate premining levels or better, to ensure that the potential for use of the groundwater shall not be diminished.

Section 2. Monitoring. (1) Each permittee who conducts in situ processing activities shall monitor the quality and quantity of surface and groundwater and the subsurface flow and storage characteristics, in a manner approved by the cabinet under 405 KAR 18:110, to measure changes in the quantity and quality of water in surface and groundwater systems in the permit area, shadow area, and in adjacent areas.

(2) Air and water quality monitoring shall be conducted in accordance with monitoring programs approved by the cabinet as necessary according to appropriate federal and state air and water quality standards. (8 Ky.R. 1593; eff. 1-6-1983; 44 Ky.R. 660, 1330; eff. 1-5-2018; Crt eff. 7-3-2018.)